3-month summary

- Impacts from cold weather are more likely early in this period
- For January to March overall, there is an increased likelihood of mild conditions
- Slight increase in the likelihood of the period being wet
- Increased likelihood of impacts from heavy rain and strong winds compared to early winter

3-month likelihood of impact

Temperature

15% chance the season will be COLD	55% chance the season will be NEAR AVERAGE	30% chance the season will be MILD
0.8× the normal chance ▼	0.9× the normal chance ▼	1.5× the normal chance ▲

Precipitation

20% chance the season will be DRY	55% chance the season will be NEAR AVERAGE	25% chance the season will be WET
1.0× the normal chance ▲▼	0.9× the normal chance ▼	1.3× the normal chance ▲

Wind speed

20% chance the season will be CALM	60% chance the season will be NEAR AVERAGE	20% chance the season will be WINDY
1.0× the normal chance ▲▼	1.0× the normal chance ▲▼	1.0× the normal chance ▲▼

1-month summary

- Slight increase in the likelihood of a cold January
- The chance of a dry month is a little higher than normal
- Compared to normal, there is a slight reduction in the likelihood of a windy month

1-month likelihood of impact

Temperature

25% chance the month will be COLD	55% chance the month will be NEAR AVERAGE	20% chance the month will be MILD
1.3× the normal chance	0.9× the normal chance	1.0× the normal chance

Precipitation

25% chance the month will be DRY	55% chance the month will be NEAR AVERAGE	20% chance the month will be WET
1.3× the normal chance	0.9× the normal chance	1.0× the normal chance

Wind speed

25% chance the month will be CALM	60% chance the month will be NEAR AVERAGE	15% chance the month will be WINDY
1.3× the normal chance	1.0× the normal chance	0.8× the normal chance

Understanding the Outlook

The Outlook uses 3 categories for possible UK temperature, precipitation and wind speed in the next 1 and 3 months:

COLD, NEAR AVERAGE and MILD for temperature
WET, NEAR AVERAGE and DRY for precipitation
CALM, NEAR AVERAGE and WINDY for wind speed

These are linked to observed UK conditions in past years. The NEAR AVERAGE category represents typical conditions for the period and has a normal likelihood of 60%. The higher and lower categories represent more unusual conditions that are more likely to produce impacts. Each has a normal likelihood of 20%.

The Outlook shows how the chances of occurrence of the categories differ from normal, based on knowledge of expected global meteorological patterns. It does not identify which category will actually occur.

Same 3-month period over the last 10 years

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
COLD	MILD	NEAR AVERAGE	NEAR AVERAGE	MILD	COLD	MILD	MILD	NEAR AVERAGE	MILD
DRY	WET	NEAR AVERAGE	WET	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	WET	NEAR AVERAGE	NEAR AVERAGE
NEAR AVERAGE	WINDY	WINDY	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	WINDY	NEAR AVERAGE	NEAR AVERAGE

Same 1-month period over the last 10 years

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	MILD	COLD	NEAR AVERAGE
NEAR AVERAGE	WET	WET	WET	DRY	NEAR AVERAGE	DRY	NEAR AVERAGE	NEAR AVERAGE	DRY
NEAR AVERAGE	NEAR AVERAGE	WINDY	NEAR AVERAGE	CALM	NEAR AVERAGE	CALM	NEAR AVERAGE	CALM	NEAR AVERAGE

Outlook in context

Drivers of UK weather for January to March

The impact of global weather patterns acts to shift the chances of the categories in the Outlook. Their influence on the UK tends to peak during winter. Drivers relevant to the current Outlook are:
• La Niña, which increases the chance of westerly winds during the latter part of winter
• A westerly phase of the QBO, increasing the chance of westerly winds from the Atlantic
• A stronger than average Stratospheric Polar Vortex favours westerly winds
• An emerging Madden Julian Oscillation may reach the Pacific Ocean by early January, this would increase the likelihood of a spell of colder easterly or northerly winds during January

Long-range weather predictions

The Met Office and other prediction centres around the world routinely produce long-range predictions of conditions in the months ahead. There is relatively good agreement that through January to March, westerly winds will become more prevalent than seen during early winter. However, there is uncertainty as to whether high pressure will be centred across or to the south of the UK. This will influence the frequency of rain-bearing systems and spells of strong winds which look most likely to increase during late winter.

Impact

The greatest chance of impacts from cold weather related hazards looks to be early in this period. By late winter, whilst the frequency of these is uncertain, when compared to early winter, there is an increased likelihood of impacts from spells of heavy rain and strong winds.

Outlook compared to normal likelihood

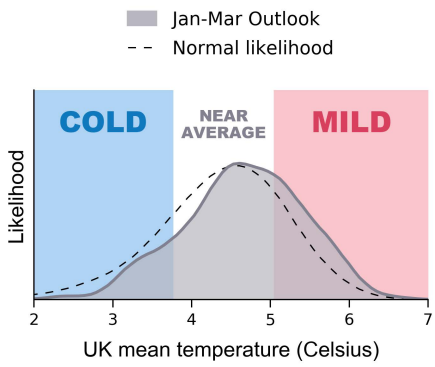
The curves below show the likelihood of the 1- and 3-month average temperature, precipitation and wind speed taking specific values. In each case:

- The dashed curve shows the normal likelihood based on how often each value has been recorded in past years
- The solid curve shows the current likelihood based on the Outlook for this year

The differences in these curves show how the probabilities for the coming periods differ compared to past years. Where the solid curve (corresponding to this year's Outlook) lies above the dashed curve (normal likelihood), the temperature, precipitation or wind speed at that point has a greater-than-normal likelihood of occurring. Likewise, wherever it is below the dashed curve, the likelihood of those values is less than normal.

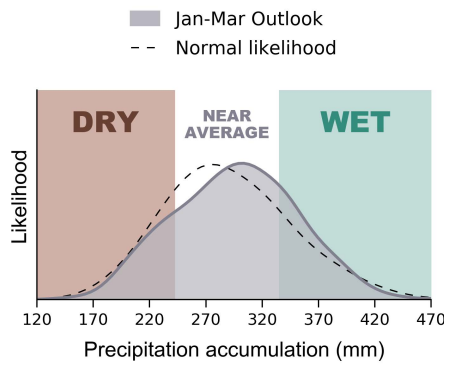
A shift of the solid curve to the left of the dashed curve indicates an increase in the chances of below-average temperature, rainfall or winds. A shift to the right, meanwhile, indicates increased chances of above-average values.

3-month temperature Outlook compared to normal



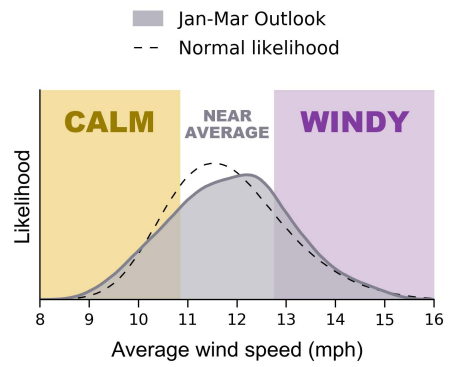
Likelihood leans towards mild

3-month precipitation Outlook compared to normal



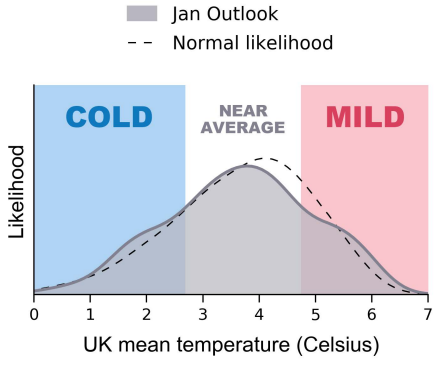
Likelihood leans slightly towards wet

3-month wind speed Outlook compared to normal



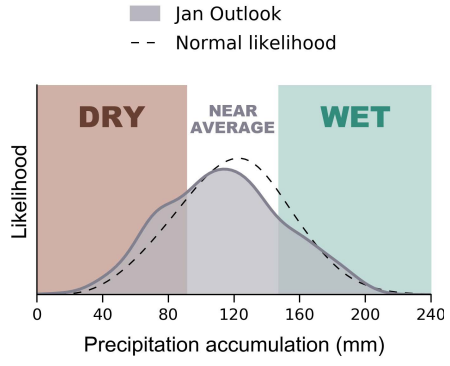
Balanced likelihood of calm and windy

1-month temperature Outlook compared to normal



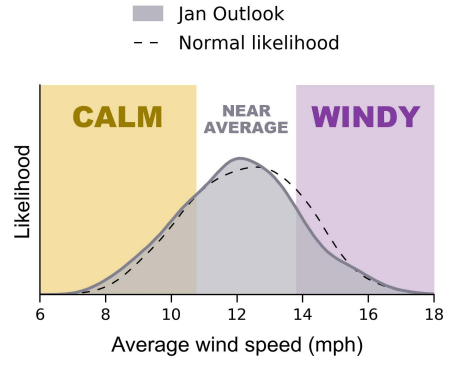
Likelihood leans slightly towards cold

1-month precipitation Outlook compared to normal



Likelihood leans slightly towards dry

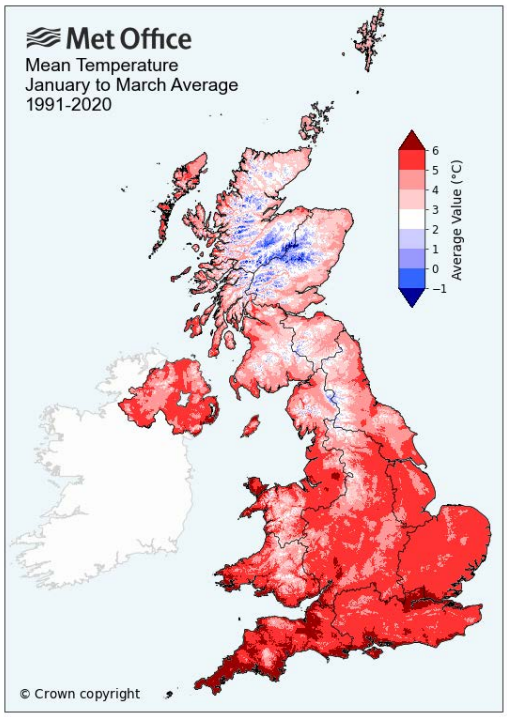
1-month wind speed Outlook compared to normal



Likelihood leans slightly towards calm

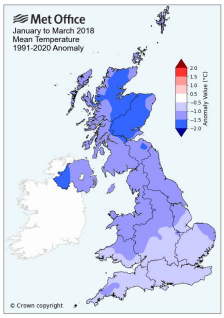
Long-term average temperatures (3-month)

This page shows the long-term average temperatures across the UK applicable to the 3 month Outlook period.

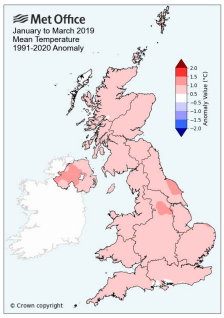


Average temperatures for January to March based on observations of past years.

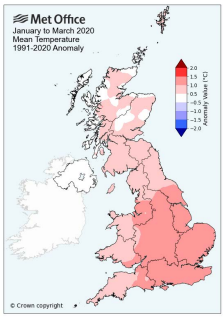
Last 5 years temperatures, difference from average (3-month)



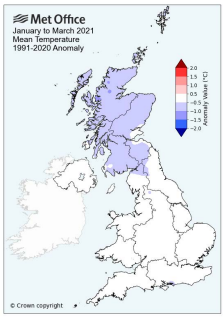
Jan - Mar 2018



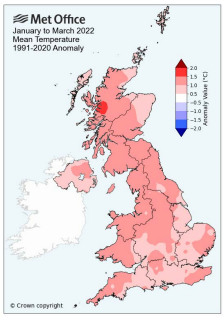
Jan - Mar 2019



Jan - Mar 2020



Jan - Mar 2021



Jan - Mar 2022

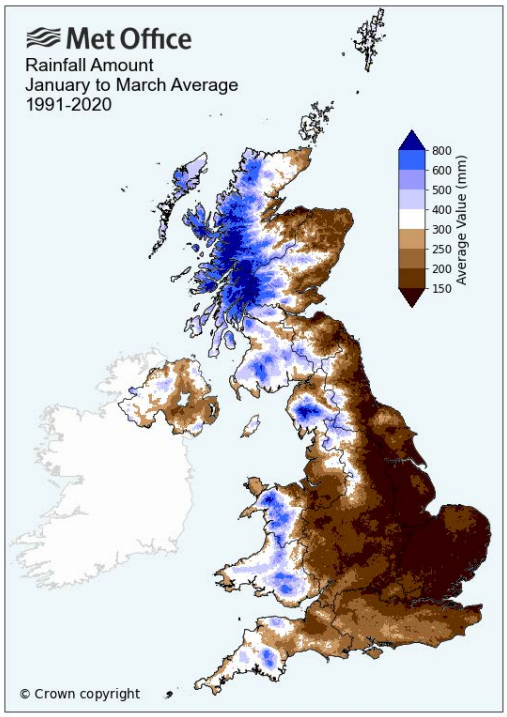
Anomaly (°C)

< -2.0	-2.0 to -1.5	-1.5 to -1.0	-1.0 to-0.5	-0.5 to 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	> -2.0

These maps show how January to March temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate warmer-than-average conditions while blue shades indicate colder-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

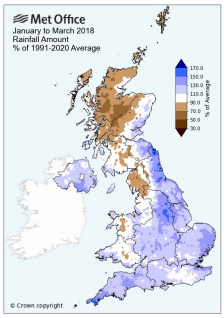
Long-term average precipitation (3-month)

This page shows the long-term average precipitation across the UK applicable to the 3 month Outlook period.

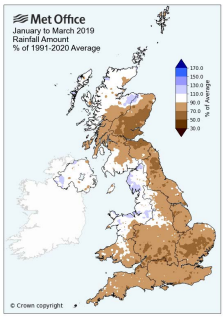


Average precipitation for January - March based on observations of past years.

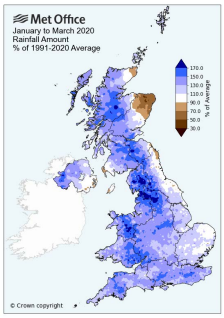
Last 5 years precipitation, difference from average (3-month)



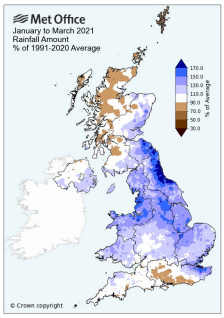
Jan - Mar 2018



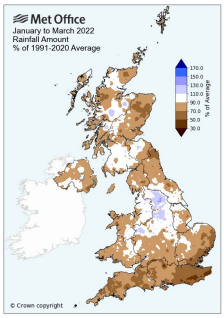
Jan - Mar 2019



Jan - Mar 2020



Jan - Mar 2021



Jan - Mar 2022

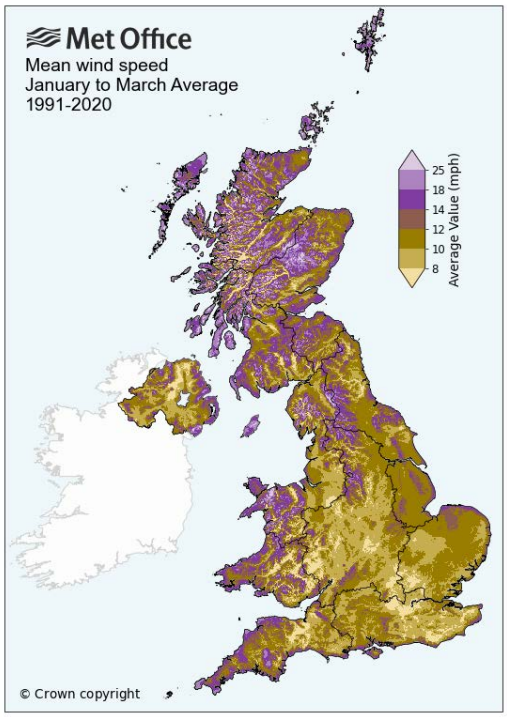
% of average

< 30	30 to 50	50 to 70	70 to 90	90 to 110	110 to 130	130 to 150	150 to 170	> 170

These maps show how January to March precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

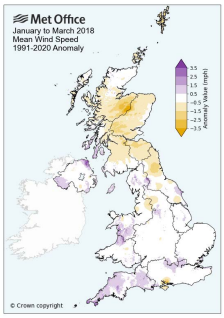
Long-term average wind speed (3-month)

This page shows the long-term average wind speed across the UK applicable to the 3 month Outlook period.

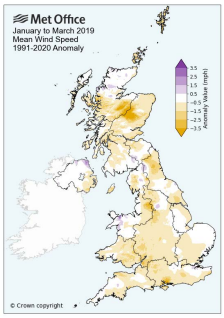


Average wind speed for January to March based on observations of past years.

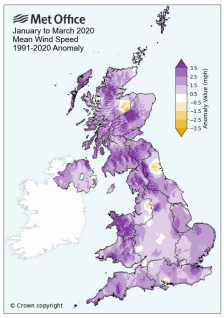
Last 5 years wind speed, difference from average (3-month)



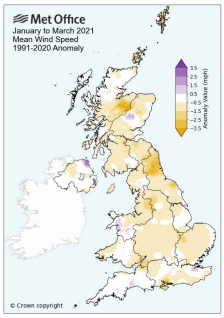
Jan - Mar 2018



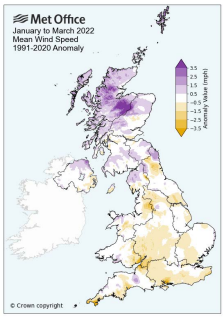
Jan - Mar 2019



Jan - Mar 2020



Jan - Mar 2021



Jan - Mar 2021

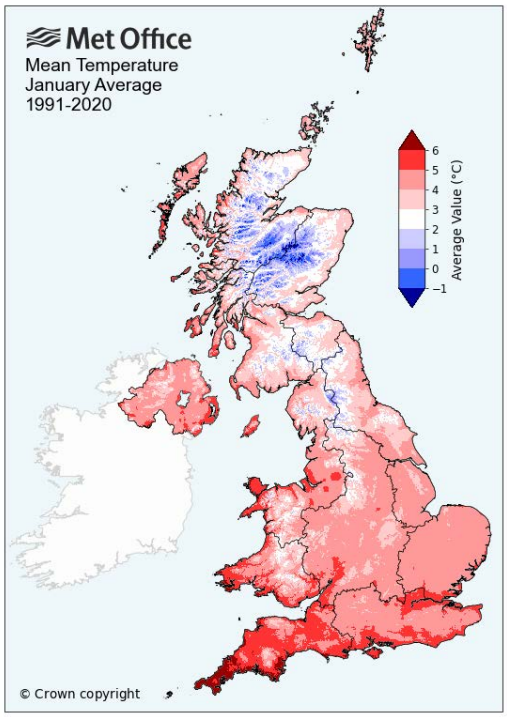
Anomaly (mph)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how January to March wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

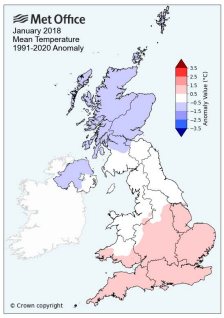
Long-term average temperatures (1-month)

This page shows the long-term average temperatures across the UK applicable to the 1 month Outlook period.

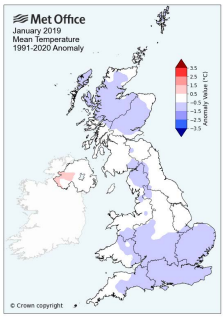


Average temperatures for January based on observations of past years.

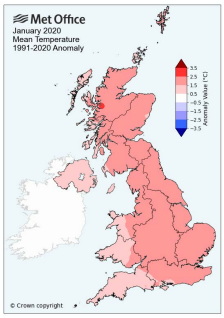
Last 5 years temperatures, difference from average (1-month)



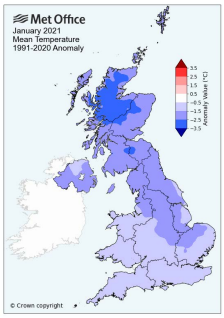
Jan 2018



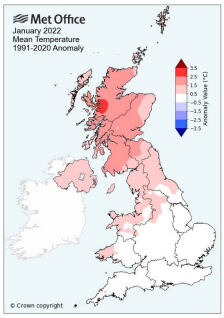
Jan 2019



Jan 2020



Jan 2021



Jan 2022

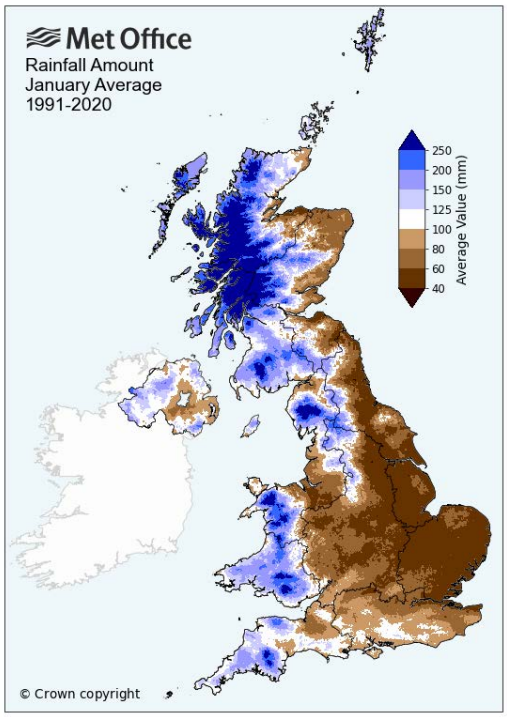
Anomaly (°C)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to-0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how January temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate warmer-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

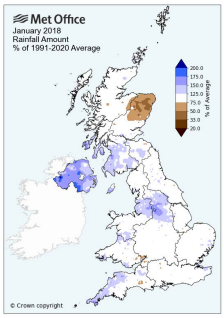
Long-term average precipitation (1-month)

This page shows the long-term average precipitation across the UK applicable to the 1 month Outlook period.

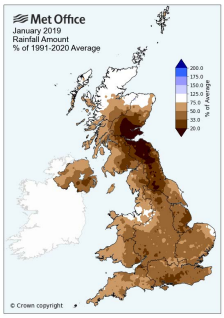


Average precipitation for January based on observations of past years.

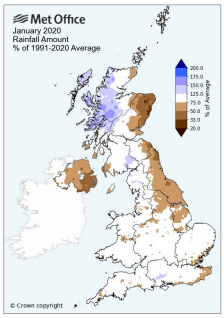
Last 5 years precipitation, difference from average (1-month)



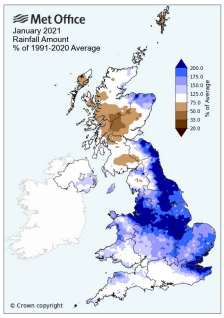
Jan 2018



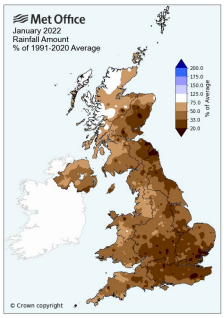
Jan 2019



Jan 2020



Jan 2021



Jan 2022

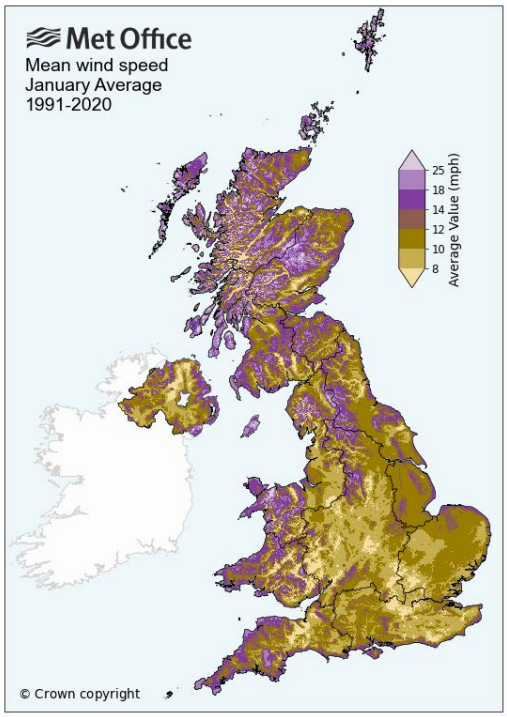
% of average

< 20	20 to 33	33 to 50	50 to 75	75 to 120	125 to 150	150 to 175	175 to 200	> 200

These maps show how January precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

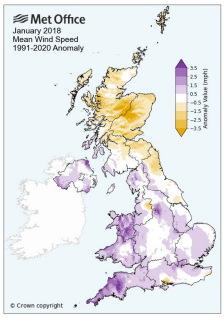
Long-term average wind speed (1-month)

This page shows the long-term average wind speed across the UK applicable to the 1 month Outlook period.

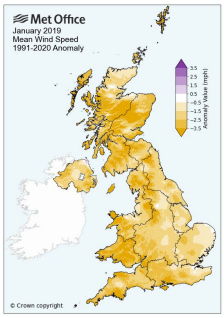


Average wind speed for January based on observations of past years.

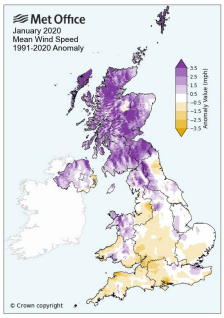
Last 5 years wind speed, difference from average (1-month)



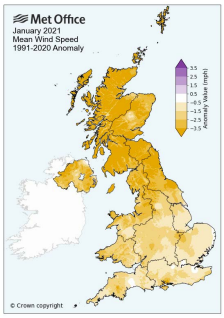
Jan 2018



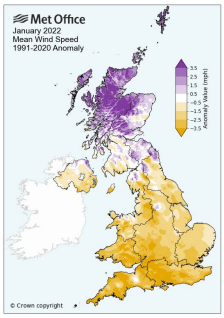
Jan 2019



Jan 2020



Jan 2021



Jan 2022

Anomaly (mph)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how January wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

Q&As

Q. What is the point of the Outlook, who is it meant for?
A. This Outlook is produced for planners in government and business who make risk-based decisions. These users are aware of the complexities of this type of outlook and will include those factors in their decision-making process.

Q. How did you decide on the Outlook? What are the main factors affecting it?
A. It is based on information from observations, several numerical prediction systems and expert judgement. See the 'Outlook in Context' section of the Outlook for more details.

Q. Is the Outlook for the whole country?
A. The Outlook is for the average of conditions over the UK as a whole. Regional deviations from the UK-average can occur. For example, average UK precipitation can result from below-average rainfall for the northwest and above-average for the southeast.

Q. How confident are you in this Outlook?
A. The percentages in the 'Likelihood of Impact' sections of the Outlook give the level of confidence.

Q. With an increased likelihood of mild conditions over the Outlook period have we seen the last of the cold weather?
A. The Outlook is for January and January to March and does not directly address the immediate longevity of the very cold weather that has been experienced in December. More information on prospects for cold over the next few weeks is available on the Met Office website. The outlook does indicate a slightly greater chance of cold conditions than usual in January, but does not tell us if, or when, any cold spells might come along. Later in the period there is a greater chance of mild conditions. Broadly speaking, mild winter periods have less snow, but it is still possible to have cold, snowy periods embedded within a mild season overall.

Q. Are named storms and/or flooding a risk because of the increased chance of heavy rain and strong winds later in the Outlook period?
A. The Outlook indicates an increased chance of a trend towards westerly winds affecting the UK late in winter. This pattern can favour an increase in the frequency of low-pressure Atlantic storms, bringing wet and windy weather, however, the Outlook cannot specify the potential severity, location, duration or timing of specific events and the Outlook does not rule out other scenarios. Flood impacts are often related to individual storm events rather than seasonal trends. Those concerned about these risks should monitor our severe weather warnings and the flood warnings issued by the Environment Agency, SEPA, Natural Resources Wales or NI Direct.

About the Outlook

The Outlook presented here is for United Kingdom as a whole and is based on information from observations, several numerical prediction systems and expert judgement. It is updated monthly to reflect the latest information on global weather patterns and their effect on the UK. The Outlook is designed to be used in conjunction with shorter-range forecasts – detailed weather forecast information is available on the Met Office website.

In this product, temperature refers to the average of daytime maxima and night-time minima. Wind speed refers to the average wind speed at a height of 10 metres. All numerical values relate to averages (temperature, wind speed) or totals (precipitation – rain, sleet, snow and hail) over 1 or 3 months, which are further averaged over the UK land area as a whole. Normal likelihood and long-term averages are established using the period 1991-2020.

Find out more

- UK 3-month Outlook user guidance page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/user-guidance/user-guidance
- Explainers on climate drivers (such as the El Niño Southern Oscillation and North Atlantic Oscillation) that influence seasonal forecasts and the impacts they can have on UK weather:
  https://www.metoffice.gov.uk/services/government/contingency-planners/seasonal-forecasts-and-climate-drivers-resources
- Contingency planners page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/index

Contact us

Website:
www.metoffice.gov.uk

Email:
enquiries@metoffice.gov.uk

Provide your feedback

We would like to hear your feedback on the UK 3-month Outlook to understand how it is being used. Please fill in the short form using this link or QR code to share your thoughts.